What is claimed is:

1. A radiation detector including a substrate on which at least one unit pixel is formed, the unit pixel comprising:

first and second displaceable members attached to the substrate and having similar respective thermally bimorphous structures;

a first effecting element attached to the first displaceable member and a second effecting element attached to the second displaceable member such that at least a portion of the second effecting element faces the first effecting element;

a radiation absorber configured to absorb incident radiation to be detected, the radiation absorber being thermally coupled to the first displaceable member but substantially not to the second displaceable member so as to enable the radiation absorber, when heated by absorption of incident radiation, to transfer heat to the first displaceable member but substantially not to the second displaceable member;

each of the first and second displaceable members including at least a first and a second layer laminated together in a stacking direction normal to the substrate to form the respective thermally bimorphous structure, the first and second layers being formed of respective first and second materials having different respective coefficients of thermal expansion so as to cause a displaceable member to exhibit a bending response when heated, the bending response in one displaceable member but substantially not in the other displaceable member resulting in a change in a gap distance between the first and second effecting elements, wherein the change in gap produces a measurable corresponding change in an effecting parameter; and

the first and second displaceable members being disposed so as not to overlap each other when viewed in the stacking direction.

2. The radiation detector of claim 1, wherein the first and second effecting elements are first and second electrodes, respectively.

3. The radiation detector of claim 2, wherein the first and second electrodes are configured to allow an electrical capacitance to be measured between the first and second electrodes, the electrical capacitance exhibiting a change with a respective change in the gap distance.

4. The radiation detector of claim 1, wherein the first and second effecting elements are first and second optically effecting elements, respectively.

5. The radiation detector of claim 4, wherein the first and second optically effecting elements are configured as a reflector and half-mirror, respectively, of a readout light.

6. The radiation detector of claim 1, wherein the first and second displaceable members are situated relative to each other such that the first and second layers of each of the first and second displaceable members are formable simultaneously during respective fabrication steps.

7. The radiation detector of claim 1, wherein the radiation absorber is absorptive to infrared radiation.

8. The radiation detector of claim 1, wherein the second displaceable member is disposed substantially parallel to the first displaceable member.

9. A radiation detector including a substrate on which at least one unit pixel is formed, the unit pixel comprising:

first and second displaceable members attached to the substrate and having similar respective thermally bimorphous structures;

a first electrode attached to the first displaceable member and a second electrode attached to the second displaceable member such that at least a portion of the second electrode faces the first electrode;

a radiation absorber configured to absorb incident radiation to be detected, the radiation absorber being thermally coupled to the first displaceable member but substantially not to the second displaceable member so as to enable the radiation absorber, when heated by absorption of incident radiation, to transfer heat to the first displaceable member but substantially not to the second displaceable member;

each of the first and second displaceable members including at least a first and a second layer laminated together in a stacking direction normal to the substrate to form the respective thermally bimorphous structure, the first and second layers being formed of respective first and second materials having different respective coefficients of thermal expansion so as to cause a displaceable member to exhibit a bending response when heated, the bending response in one displaceable member but substantially not in the other resulting in a change in a gap distance between the first and second electrodes, wherein the change in gap produces a measurable corresponding change in an electrical parameter of the first and second electrodes; and

the first and second displaceable members being disposed so as not to overlap each other when viewed in the stacking direction.

10. The radiation detector of claim 9, wherein the first and second electrodes are configured to allow an electrical capacitance to be measured between the first and second electrodes, the electrical capacitance exhibiting a change with a respective change in the gap distance.

11. The radiation detector of claim 9, wherein the first and second displaceable members are situated relative to each other such that the first and second layers of each of the first and second displaceable members are formable simultaneously during respective fabrication steps.

12. The radiation detector of claim 9, wherein the first and second displaceable members are situated parallel to each other.

13. The radiation detector of claim 9, further comprising a radiation reflector, wherein:

the radiation absorber reflects a portion of radiation incident to it; and

the radiation reflector is situated relative to the radiation absorber to define a gap of substantially $n\lambda_0/4$ between the radiation absorber and the radiation reflector, wherein n is an odd integer and λ_0 is the center wavelength of a wavelength band of radiation detectable by the radiation detector.

14. The radiation detector of claim 13, wherein:

the radiation reflector is one of the first and second electrodes; and

the radiation absorber is situated in the stacking direction relative to the first and second electrodes.

15. The radiation detector of claim 14, wherein:

the first and second electrodes and the radiation absorber are aligned with each other and arranged in the stacking direction in an order of (a) radiation absorber, first electrode, then second electrode, or (b) radiation absorber, second electrode, then first electrode; and

the first displaceable member, when heated, exhibits a bending response that that displaces the second electrode away from the first electrode.

16. The radiation detector of claim 9, wherein:

the first electrode comprises a planar portion and a side portion, the planar portion having a periphery and the side portion extending at least partially around the periphery, the side portion projecting from the planar portion away from the second electrode; and

the second electrode comprises a planar portion and a side portion, the planar portion having a periphery and the side portion extending at least partially around the periphery, the side portion extending from the planar portion away from the first electrode.

17. The radiation detector of claim 9, wherein one of the first and second electrodes is affixed via a support frame to the respective first or second displaceable member, the support frame being made of a thermally insulative material and comprising a planar portion having a periphery, the side portion being configured to extend from the planar portion along at least a portion of the periphery.

18. The radiation detector of claim 9, further comprising an electrically insulative film situated between the first electrode and the second electrode.

19. The radiation detector of claim 9, further comprising first and second legs, wherein the first displaceable member is mounted to the substrate via the first leg, and the second displaceable member is mounted to the substrate via the second leg.

20. The radiation detector of claim 19, wherein:

each leg has a respective length direction, start point, and end point; and

with respect to the first leg, a distance along the respective length direction from the respective start point to the respective end point is substantially equal to, with respect to the second leg, a distance along the respective length direction from the respective start point to the respective end point.

21. The radiation detector of claim 20, wherein:

the end point of the first leg is located in the first displaceable member; and

the end point of the second leg is located in the second displaceable member.

22. The radiation detector of claim 19, wherein:

each leg has a respective length direction, start point, and end point; and

with respect to the second leg, a distance along the respective length direction from the respective start point to the respective end point is shorter than, with respect to the first leg, a distance along the respective length direction from the respective start point to the respective end point.

23. The radiation detector of claim 22, wherein the second leg has zero length, along the length direction, between the start point and the end point.

24. The radiation detector of claim 19, wherein the first and second legs, the first and second displaceable members, the first and second electrodes, and the radiation absorber are disposed in the stacking direction with respective intervening spaces therebetween.

25. The radiation detector of claim 9, wherein:

each of the first and second displaceable members has a width direction, a respective start point, and a respective end point; and

the start point of the first displaceable member and the start point of the second displaceable member have substantially identical positions when viewed from the width direction of the first and second displaceable members.

26. The radiation detector of claim 9, wherein:

each of the first and second displaceable members has a width direction, a respective start point, and a respective end point; and

the start point of the first displaceable member and the start point of the second displaceable member are shifted relative to each other to form a gap between the first and second displaceable members, the gap being narrowed when viewed from the width direction of the first and second displaceable members.

27. A radiation detector including a substrate on which at least one unit pixel is formed, the unit pixel comprising:

first and second displaceable members attached to the substrate and having similar respective thermally bimorphous structures;

a first electrode attached to the first displaceable member and a second electrode attached to the second displaceable member such that at least a portion of the second electrode faces the first electrode;

a radiation absorber configured to absorb incident radiation to be detected, the radiation absorber being thermally coupled to the first displaceable member but substantially not to the second displaceable member so as to enable the radiation absorber, when heated by absorption of incident radiation, to transfer heat to the first displaceable member but not to the second displaceable member;

each of the first and second displaceable members including at least a first and a second layer laminated together in a stacking direction perpendicular to the substrate to form the respective thermally bimorphous structure, the first and second layers being formed of respective first and second materials having different respective coefficients of thermal expansion so as to cause a respective displaceable member to exhibit a bending response when heated, the bending response causing a change in a gap distance between the first and second electrodes;

the first and second electrodes being configured to allow an electrical capacitance to be measured between the first and second electrodes, the electrical capacitance exhibiting a change with a respective change in the gap distance; and

the first and second displaceable members being situated relative to each other without mutual overlap when viewed from a direction normal to the substrate.

28. A radiation detector including a substrate on which at least one unit pixel is formed, the unit pixel comprising:

first and second displaceable members attached to the substrate;

a first optically effecting element attached to the first displaceable member and a second optically effecting element attached to the second displaceable member such that the second optically effecting element is substantially parallel to the first optically effecting element, the first and second optically effecting elements collectively receiving a readout light;

a radiation absorber configured to absorb incident radiation to be detected, the radiation absorber being thermally coupled to the first displaceable member but substantially not to the second displaceable member so as to enable the radiation

absorber, when heated by absorption of incident radiation, to transfer heat to the first displaceable member but substantially not to the second displaceable member; and

each of the first and second displaceable members having similar respective structures each including at least a first and a second layer laminated together in a stacking direction normal to the substrate to form a respective thermally bimorphous structure, the first and second layers being formed of respective first and second materials having different respective coefficients of thermal expansion so as to cause a displaceable member to exhibit a bending response when heated; wherein

the bending response in one displaceable member but substantially not in the other displaceable member results in a change in a gap distance between the first and second optically effecting elements;

the first and second optically effecting components collectively impart a change to the readout light corresponding to the change in the gap distance and emit the changed readout light; and

the first and second displaceable members are disposed so as not to overlap each other when viewed in the stacking direction.

29. The radiation detector of claim 28, wherein the radiation absorber comprises a reflector for reflecting at least part of the incident radiation, the reflector being separated from the radiation absorber by a gap of substantially $n\lambda_0/4$, where n is an odd number and λ_0 is a median wavelength of a desired wavelength band of the incident radiation.

30. The radiation detector of claim 29, wherein the reflector reflects substantially all of the incident radiation.

31. The radiation detector of claim 29, wherein:

the radiation reflector is at least one of the first and second optically effecting elements; and

the radiation absorber is disposed in the stacking direction relative to at least one of the first and second optically effecting elements.

32. The radiation detector of claim 28, wherein:

at least one of the first and second optically effecting elements is fixed with respect to the respective displaceable member via a support frame; and

the support frame comprises a planar portion and a side portion extending peripherally along at least part of the planar portion.

33. The radiation detector of claim 28, further comprising first and second legs, wherein:

the first displaceable member is mounted to the substrate by the first leg having a first end, a second end, and a length between the first and second ends; and

the second displaceable member is mounted to the substrate by the second leg having a first end, a second end, and a length between the first and second ends.

34. The radiation detector of claim 33, wherein a distance along the length of the first leg between the respective first and second ends of the first leg is substantially equal to the length of the second leg between the respective first and second ends.

35. The radiation detector of claim 33, wherein the length of the second leg is shorter than the length of the first leg, or is substantially zero length.

36. The radiation detector of claim 33, wherein:

each of the first and second displaceable members has a respective length between respective first and second ends; and

the length of the first displaceable member is substantially equal to the length of the second displaceable member.

37. The radiation detector of claim 36, wherein when viewed in a width direction of the first and second displaceable members, the first end of the first displaceable member is at substantially the same location as the first end of the second displaceable member.

38. The radiation detector of claim 28, wherein:

the first displaceable member is mounted to the substrate by a first leg;

the second displaceable member is mounted to the substrate by a second leg; and

the first and second legs, the first and second displaceable members, and the first and second optically effecting elements are each disposed with respective spaces therebetween in the stacking direction.

39. The radiation detector of claim 28, wherein:

at least one of the first and second optically effecting elements is a reflector;

the other of the first and second optically effecting elements faces the reflector and is configured as a half-mirror that reflects only part of the received readout light; and

the reflector and the half-mirror reflect the received readout light as an interference light.

40. The radiation detector of claim 28, wherein:

the first optically effecting element is a first reflector;

the second optically effecting element is a second reflector; and

the first and second reflectors substantially constitute a reflection-type diffraction grating for reflecting the received readout light as diffracted light.

41. In a method for fabricating, on a substrate, a radiation detector including at least one unit pixel, the method comprising for each pixel of the detector:

in a first layer-forming step, forming a first layer, of a first material having a respective coefficient of thermal expansion, of each of first and second displaceable members;

in a second layer-forming step, forming a second layer, of a second material having a respective coefficient of thermal expansion that is different from the coefficient of thermal expansion of the first material, of each of the first and second displaceable members to form respective thermally bimorphous structures in which the respective first and second layers are laminated together;

forming a first effecting element attached to the first displaceable member;

forming a second effecting element attached to the second displaceable member such that at least respective portions of each of the first and second effecting elements face each other in a stacking direction with a space therebetween, and such that an effecting parameter can be measured between the first and second effecting elements; and

forming a radiation absorber in a manner and location such that the radiation absorber is thermally coupled to the first displaceable member but substantially not to the second displaceable member, the radiation absorber being formed of a material that absorbs incident radiation that causes heating of the radiation absorber with resultant conduction of the heat to the first displaceable member.

42. The method of claim 41, wherein the first and second effecting elements are formed as first and second electrodes, respectively.

43. The method of claim 42, further comprising the step, between forming the first and second electrodes, of forming an electrically insulative layer configured to be situated between the first and second electrodes.

44. The method of claim 41, wherein the first and second effecting elements are formed as first and second optically effecting elements, respectively.

45. The method of claim 41, wherein the first effecting element, second effecting element, and radiation absorber are formed in an order, from the substrate in a stacking direction, of first effecting element, second effecting element, and radiation absorber.

46. The method of claim 41, wherein the first effecting element, second effecting element, and radiation absorber are formed in an order, from the substrate in a stacking direction, of second effecting element, first effecting element, and radiation absorber.

47. The method of claim 41, wherein the first effecting element, second effecting element, and radiation absorber are formed in an order, from the substrate in a stacking direction, of radiation absorber, first effecting element, and second effecting element.

48. The method of claim 41, wherein the first effecting element, second effecting element, and radiation absorber are formed in an order, from the substrate in a stacking direction, of radiation absorber, second effecting element, and first effecting element.

49. The method of claim 41, wherein the first and second displaceable members are formed parallel to each other.

50. The method of claim 41, further comprising the steps of:

forming a first leg attaching the first displaceable member to the substrate; and

forming a second leg attaching the second displaceable member to the substrate.

51. The method of claim 41, further comprising the step of forming each of the first effecting element, the second effecting element, and the radiation absorber with a respective planar portion extending parallel to the substrate and having a respective periphery, and a respective side portion extending along at least a portion of the respective periphery.

52. In combination:

a radiation detector as recited in claim 28; and

a readout-light optical system situated and configured to direct a readout light to the radiation detector and to detect readout light reflected from the radiation detector.